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ADDENDUM TO THE FACT SHEET FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT NO. WA0037214

I. GENERAL INFORMATION

Facility: North End Wastewater Treatment Plant No. 3
2201 Portland Avenue
Tacoma, WA 98421-2711

II. APPLICATION REVIEW

The city of Tacoma submitted an application to Ecology on October 15, 2007 and on March 12, 2008, for permit reissuance, and the Department of Ecology (Ecology) accepted it on April 16, 2008. Ecology has sufficiently reviewed the application, discharge monitoring reports, and other facility information in enough detail to ensure that:

- The city of Tacoma has complied with all of the terms, conditions, requirements and schedules of compliance of the expired permit.
- Ecology has up-to date information on the North End Wastewater Treatment Plant No. 3 waste treatment practices, and the nature, content, volume, and frequency of its discharge.
- The discharge meets applicable effluent standards and limits, water quality standards, and other legally applicable requirements.

III. PERMIT REAUTHORIZATION

When Ecology reauthorizes a discharge permit it essentially reissues the permit with the existing limits, terms and conditions. Alternatively, when Ecology renews a permit it re-evaluates the impact of the discharge on the receiving water which may lead to changes in the limits, terms and conditions of the permit.

This fact sheet addendum accompanies the permit, which Ecology proposes to reauthorize for the discharge of wastewater to Outer Commencement Bay. The previous fact sheet explains the basis for the discharge limitations and conditions of the reauthorized permit and remains as part of the administrative record.

Ecology determined it does not need to change the existing permit requirements, including discharge limits and monitoring, to protect receiving water quality. Ecology did change the effluent fecal coliform limit as discussed later in this document.

The previous fact sheet addressed conditions and issues at the facility at the time when Ecology issued the previous permit in 2003. Since the issuance of the current permit, Ecology has not received any additional information which indicates that environmental impacts from the

discharge warrant a complete renewal of the permit. The reauthorized permit is virtually identical to the previous permit issued on November 7, 2003.

Ecology reviewed inspections and assessed compliance of the North End Wastewater Treatment Plant No. 3 discharge with the terms and conditions in the previous permit and determined that it should not rank the facility as a high priority for permit renewal. Ecology assigns a high priority for permit renewals in situations where water quality would benefit from a more stringent permit during the next five-year cycle or when there has been a substantial change to the facility.

The permit reauthorization process, along with the renewal of high priority permits, allows Ecology to reissue permits in a timely manner and minimize the number of active permits that have passed their expiration dates.

A. Fecal Coliform Effluent Limit

In 2003, during permit development, Ecology determined that there was a reasonable potential for the discharge to violate water quality criteria for fecal coliform at the edge of the mixing zone, assuming discharges at the technology-based limit, and using background water quality data from monitoring station CMB003 in Outer Commencement Bay, some distance from the discharge location.

Ecology placed a performance-based effluent limit (monthly average of 48 cfu/100 mL and weekly average of 64 cfu/100 mL) in lieu of the technology-based effluent limit (monthly average of 200 cfu/100 mL and weekly average of 400 cfu/100 mL) in the permit.

At the same time, Ecology acknowledged that it was possible that the ambient monitoring station did not closely represent the conditions in the vicinity of the North End Wastewater Treatment Plant outfall. Ecology gave the city of Tacoma the option of performing a receiving water study to show that there was sufficient assimilative capacity in the vicinity of the outfall for the technology-based limits for fecal coliform to be protective of water quality standards.

In June 2004, the city of Tacoma undertook a year-long receiving water study to determine if using the technology-based limits and the ambient conditions around the North End Wastewater Treatment Plant outfall would protect the water quality standards. The results of the Commencement Bay Fecal Coliform Study, prepared by Cosmopolitan Engineering Group, August 2005, showed that the technology-based limits for fecal coliform will protect the water quality.

Therefore, Ecology replaced the performance-based permit limits of 48 cfu/100 mL as a monthly average and 64 cfu/100 mL as a weekly average with the technology-based limits of 200 cfu/100 mL as a monthly average and 400 cfu/100 mL as a weekly average for fecal coliform.

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B. Facility Loading

The City has exceeded its design capacity and will prepare Preliminary and Final Re-Rating Study Engineering Reports to assess the treatment plant's capacity and examine improvements to increase that capacity. As part of this permit re-authorization, Ecology examined the city of Tacoma's influent and effluent data to estimate what pollutant loadings the City might continue to accept during the study period and still meet existing effluent limits. Based upon our data review, we believe that the City can safely accept and study loadings (BOD and TSS) higher than its rated capacity. As a result, in this permit re-authorization, we have authorized the City to accept the following loadings:

- BOD: 10,600 lbs/day (20 percent higher than the approved design capacity); and
- TSS: 12,000 lbs/day (5 percent higher than the approved design capacity).

C. Temperature

As part of the review of the permit and the implementation of new temperature standards, and using conservative estimates of the effluent and receiving water temperatures, Ecology determined that the discharge does not have the potential to violate temperature standards in the receiving water. As a result, Ecology is not requiring monitoring for temperature (see Appendix A for Temperature Analysis).

Ecology carried over the other discharge limits and conditions in effect at the time of expiration of the previous permit to this reauthorized permit. In addition, Ecology changed the submittal dates for reports from those in the previous permit. Ecology removed the completed report requirements that do not require additional or continued assessment. It adjusted the dates for the other standard compliance and submittal requirements that it carried over from the past permit into this reauthorized permit. Ecology considered these reports necessary in the previous permit and no information has come forward to cause it to reconsider.

Ecology must public notice the availability of the draft reauthorized permit at least 30 days before it reissues the permit [Washington Administrative Code (WAC) 173-220-050]. Ecology invites you to review and comment on its decision to reauthorize the permit (see Appendix B-Public Involvement for more detail on the Public Notice procedures).

After the public comment period has closed, Ecology will prepare a response to comments document that it will attach to this fact sheet addendum. The response to comments will include the resultant changes to the permit and either addresses each comment individually or summarizes the substantive comments and respond. Ecology sends a copy of the response to comments to all parties who submitted comments. Ecology will include the response to comments in this fact sheet addendum.

IV. RECOMMENDATION FOR PERMIT ISSUANCE

Ecology proposes to reissue this permit for five years.

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APPENDIX A – TEMPERATURE ANALYSIS

Marine T-mix

T-Mix is based on WAC 173-201A-200(1)(c)(i)–(ii) and Water Quality Program Guidance.

All Data inputs must meet WQ guidelines.

The Water Quality temperature guidance document may be found at:

<http://www.ecy.wa.gov/biblio/0610100.html>

Notes: Tacoma North End WWTP

INPUT	May-Sep	Oct-Apr
1. Chronic Dilution Factor at Mixing Zone Boundary	52	52
2. Annual max 1DADMax Ambient Temperature (Background 90th percentile)	13.2 °C	13.2 °C
3. 1DADMax Effluent Temperature (95th percentile)	24.0 °C	24.0 °C
4. Aquatic Life Temperature WQ Criterion	16.0 °C	16.0 °C
OUTPUT		
5. Temperature at Chronic Mixing Zone Boundary:	13.41 °C	13.41 °C
6. Incremental Temperature Increase or decrease:	0.21 °C	0.21 °C
7. Incremental Temperature Increase $12/(T-2)$ if $T \leq \text{crit}$:	1.07 °C	1.07 °C
8. Maximum Allowable Temperature at Mixing Zone Boundary:	14.27 °C	14.27 °C
A. If ambient temp is warmer than WQ criterion		
9. Does temp fall within this warmer temp range?	NO	NO
10. Temp increase allowed at mixing zone boundary, if required:	---	---
B. If ambient temp is cooler than WQ criterion but within $12/(T_{\text{amb}}-2)$ and within 0.3 °C of the criterion		
11. Does temp fall within this incremental temp. range?	NO	NO
12. Temp increase allowed at mixing zone boundary, if required:	---	---
C. If ambient temp is cooler than (WQ criterion-0.3) but within $12/(T_{\text{amb}}-2)$ of the criterion		
13. Does temp fall within this Incremental temp. range?	NO	NO
14. Temp increase allowed at mixing zone boundary, if required:	---	---
D. If ambient temp is cooler than (WQ criterion - $12/(T_{\text{amb}}-2)$)		
15. Does temp fall within this Incremental temp. range?	YES	YES
16. Temp increase allowed at mixing zone boundary, if required:	NO LIMIT	NO LIMIT
17. Do any of the above cells show a temp increase?	NO	NO
18. Temperature Limit if Required?	NO LIMIT	NO LIMIT

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APPENDIX B--PUBLIC INVOLVEMENT INFORMATION

Ecology proposes to reissue a permit to North End Wastewater Treatment Plant No. 3. The permit includes wastewater discharge limits and other conditions. This fact sheet addendum describes the facility and Ecology's reasons for reauthorizing the permit conditions.

Ecology placed a Public Notice of Application on June 9, 2008, and June 16, 2008, in the *Tacoma News Tribune* to inform the public about the submitted application and to invite comment on the reissuance of this permit.

Ecology will place a Public Notice of Draft on _____, in the *Tacoma News Tribune* to inform the public and to invite comment on the proposed draft National Pollutant Discharge Elimination System permit and fact sheet addendum.

The Notice –

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offers to provide the documents in an alternate format to accommodate special needs.
- Urges people to submit their comments, in writing, before the end of the Comment Period.
- Tells how to request a public hearing of comments about the proposed NPDES Permit.
- Explains the next step(s) in the permitting process.

Ecology has published a document entitled **Frequently Asked Questions about Effective Public Commenting** which is available on our website at <http://www.ecy.wa.gov/biblio/0307023.html>.

You may obtain further information from Ecology by telephone at 360-407-6279, or by writing to the permit writer at the address listed below.

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The primary author of this permit and fact sheet is Mahbub Alam.